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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,417	08/24/2004	Hiroshi Kaneta	8017-1141	7384

466 7590 03/07/2007
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EXAMINER

LEE, CYNTHIA K

ART UNIT	PAPER NUMBER
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1745

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/505,417

Applicant(s)

KANETA ET AL.

Examiner

Cynthia Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-8 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-8 and 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is responsive to the after final amendment filed on 12/19/2006.

Claims 1-3, 5-8, and 11-20 are pending. Applicant's arguments with respect to the independent claim 1 have been fully considered and are persuasive. The instant claims are rejected under new grounds of rejections and thus, claims 1-3, 5-8, and 11-20 are finally rejected for reasons necessitated by Applicant's amendment.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3, 5-8, and 11-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation in claim 1 "that is separated from a path of a current that is caused by charge or discharge of the flat secondary battery" is not supported by the original disclosure. Since the third terminal is attached directly to a collector, the third terminal will necessarily be in the path of a current caused by charge/discharge.

Claim 18 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one

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skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "two of said third terminal that each attached to a respective one of said positive and negative electrode terminals" is not supported by the original disclosure.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 5-8, and 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear as to how a third terminal is "separated from a path of a current that is caused by charge or discharge of the flat secondary battery" when the third terminal is attached directly to a collector. The Examiner has interpreted this limitation to be met by the prior art interpretation below.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation "two of said third terminal that each attached to a respective one of said positive and negative electrode terminals" contradicts claim 1 because claim 1 recites that the third terminal does not directly contact electrode terminals. Note below for Examiner's interpretation.

Claim Rejections - 35 USC § 103

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

As best understood, claims 1-3, 6, 7, 13-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Clingempeel (US 5895731).

Clingempeel discloses a flat rechargeable (secondary) battery with power generating elements enclosed therein (see fig. 2). The battery is formed of an internal battery structure enclosed within a sealed laminate casing having two positive (cathode terminals and one negative (anode terminal). The Examiner is interpreting one of Clingempeel's positive terminals (13 in Fig. 1) to read on Applicant's "third terminal".

The Examiner notes that the third terminal has the same potential as one of the positive and negative electrode collectors because the third terminal is attached to the positive current collector.

Regarding the limitation "separated from a path of a current that is caused by charge or discharge of the flat secondary battery" (applicant's claim 1), it would be met by charging the battery with just one positive terminal. Should it not be anticipatory, It

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would have been obvious to one of ordinary skill in the art at the time the invention was made to recharge the battery with the negative terminal and one positive terminal because charging the battery with either one or two positive terminals would achieve charging and discharging. It has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Clingempeel does not disclose that the third terminal is formed in a different direction or in a perpendicular direction as the positive and negative electrodes, or remote from terminals for charge and discharge (applicant's claims 2, 3, and 15). However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the location or the direction of the terminals to suit the electrical connection requirements and space requirements for the intended application.

Clingempeel discloses one third terminal and not two third terminals (applicant's claim 18). However, It would have been obvious to one of ordinary skill in the art at the time the invention was made to add more terminals for the benefit of varying the number of terminals for charging. Further, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. The Examiner notes that the third terminal is indirectly attached to the positive or negative terminal through the current collector.

Claims 5, 8, 11, 12, 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clingempeel (US 5895731) as applied to claims 1 and 18 above and incorporated herein, and further in view of Higashijima (US 5886502).

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Clingempeel does not disclose a third terminal connected to a control circuit. However, Higashijima discloses a cell balancer circuit connected to cells connected in series to detect difference in voltage among the cells. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a cell balancer circuit to the cell terminals for the benefit of detecting the voltage of the cells and achieving a balance of voltages among the cells, as taught by Higashijima (abstract, 1:5-10, 2:40-45).

Response to Arguments

Applicant's prior art arguments have been considered but are moot in view of the new ground(s) of rejection.

In response to the Figures A and B submitted by the Applicants along with the Arguments, the Examiner notes that the instant claims still have been found to read on prior art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Lee whose telephone number is 571-272-8699. The examiner can normally be reached on Monday-Friday 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's trainer, Susy Tsang-Foster can be reached on 571-272-1293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ckl



**SUSY TSANG-FOSTER
PRIMARY EXAMINER**